



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,025	11/20/2006	Stephen Behr	20CF-144430	2195
69849 7590 06/18/2010 SHEPPARD, MULLIN, RICHTER & HAMPTON LLP 990 Marsh Road Menlo Park, CA 94025				
EXAMINER MI, QIUWEN				
ART UNIT 1655		PAPER NUMBER		
MAIL DATE 06/18/2010		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,025

Applicant(s)

BEHR ET AL.

Examiner

QIUWEN MI

Art Unit

1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26 and 31-64 is/are pending in the application.
- 4a) Of the above claim(s) 34, 36-44, 59 and 60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26, 31-33, 35, 45-58 and 61-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/26/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/17/2010; 2/3/2010; 5/26/2010.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

CONTINUED EXAMINATIONS

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/17/2010 has been entered.

Applicant's amendment in the reply filed on 5/17/2010 is acknowledged, with the cancellation of Claims 1-25, and 27-30, and newly added claims 61-64 (drawn to elected invention). Claims 26, and 31-64 are pending. Claims 34, 36-44, 59, and 60 are withdrawn as they are directed toward a non-elected invention groups or species. **Claims 26, 31-33, 35, 45-58, and 61-64 are examined on the merits.**

Any rejection that is not reiterated is hereby withdrawn.

Claim Rejections –35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26, 31-33, 35, 45-58, and 61-64 are newly rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al (JP 2000336024A) in view of Cyr (US 2004/0175439), and further in view of Inomata et al (JP 2003201229 A).

This is a new rejection necessitated by the Applicant's amendment filed on 11/6/09.

Kondo et al teach cosmetic (dermatological) compositions containing one or more humectant plant extracts of *Chenopodium quinoa* etc for dry skin (see Abstract). Kondo et al teach a sample preparation of lotion (thus topical, administering to a subject) comprising purified water (physiologically acceptable carrier), polyethylene glycol 1000 (moisturizing agent), and Quinoa (the same as *Chenopodium quinoa*, see page 4, [0008]) in 20% EtOH extract (thus solvent extraction) (alcoholic solvent) (see full translation, page 27, [0085]). Kondo et al also teach that composition of cosmetics that contain moisture-retaining plant extracts with sustained moisture-retention effects over extended periods, and possess properties effective for skin treatments that prevent, alleviate, or improve such conditions as dryness, rough skin, cracks, chaps, dandruff, pruritus and inflammatory diseases (thus maintain and/or improve the health and/or appearance of the skin in a subject) (see page 32, [0100]). Kondo et al further teach Quinoa extract in 30% PG (propylene glycol, see page 24, [0074]) in test solutions (see page 26, Table 2). Kondo et al at last teach the plants used in this invention are described as follows, wherein the preparation is performed with the leaf, stem, root, flower, seed or whole plant, which may also come in the form of crude drugs (page 4, [0007]).

Kondo et al do not teach the plant material from *Chenopodium quinoa* has the matrix metalloprotease inhibiting activity; neither do Kondo et al explicitly teach using *Chenopodium quinoa* seed, or a method of improve skin appearance comprises decreasing appearance of

wrinkles, attenuating or delaying onset of skin aging comprising loss of skin elasticity, or increasing collagen production.

Cyr teaches plant extracts and compositions comprising extracellular protease inhibitors (see Title). As evidenced by Cys, *Chenopodium quinoa* has 66.3% MMP-1 inhibition (page 16, Table 1), 92% MMP-2 inhibition (page 20, Table 2, and 23.1-34.7% MMP-9 inhibition (page 33, Table 4).

Inomata et al teach matrix metalloproteinases (MATRIXMETALLOPROTEINASES, MMPS) activity inhibitor and topical skin preparation contain one or more plants including root of *Cocos nucifera* L. (C.NUCIFERA, COCOS NUCIFERA) of *Cocos* of *Palmae*, leaf of *Blumea balsamifera* (B.BALSAMIFERA) of *Blumea* of *Compositae*, fruit of *Illicium verum* (ILLICIUM VERUM HOOK.F., I.VERUM) of *Illicium* of *Illiciaceae*, bark of *Juniperus brasiliensis* (J.BRASILIENSIS) of *Juniperus* of *Cupressaceae* (CUPRESSAEAE), bark of *Salix alba* (S.ALBA) of *Salix* of *Salicaceae*, seed of *Paullinia cupana* (P.CUPANA) of *Paullinia* of *Sapindaceae* (SAPINADACEAE), and root of *Smilax officinalis* (S.OFFICINALIS), *Smilax aristolochiaefolia* (S.ARISTOLOCHIAEFOLIA), and *Smilax aspera* L. (S.ASPERA L., SMILAX ASPERA) of *Smilax* of *Liliaceae*. The preparation method comprises soaking or heating and refluxing the plant in extraction solvent, filtering, concentrating, and refining to obtain ext., which is added into cosmetic in an amt. of 0.0001-20%. The MMPS refer to one or more enzymes of gelatinase (containing MMP-2, MMP-9, etc.), matrix degrading enzymes (containing MMP-3, MMP-10, etc.), and collagenase (containing MMP-1, MMP-8, MMP-13, etc.). The MMPS inhibitor can be used as protein fiber decomposition inhibitor, laminin decomposition inhibitor, basement membrane decomposition inhibitor, glycolipid decomposition

inhibitor, and collagen decomposition inhibitor. The product has the effects of preventing the decomposition of skin extracellular matrix (ECM), preventing and relieving skin aging, maintaining skin elasticity, and reducing wrinkles and skin relaxation (see Abstract, machine translation is attached).

It would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the extract of *Chenopodium quinoa* in a method of improving the appearance of skin, delaying the onset of aging, or delaying the dermatological condition such as inflammation since Kondo et al teach the plant extract with sustained moisture-retention effects over extended periods, and possess properties effective for skin treatments that prevent, alleviate, or improve such conditions as dryness, rough skin, cracks, chaps, dandruff, pruritus and inflammatory diseases.

It would also have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use a dermatological formulation comprising plant extract from *Chenopodium quinoa* that inhibit the activity metalloprotease since Cyr (US 2004/0175439) teaches *Chenopodium quinoa* has 66.3% MMP-1 inhibition activity, 92% MMP-2 inhibition activity, and 23.1-34.7% MMP-9 inhibition activity. It would also have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use *Chenopodium quinoa* seed since Kondo et al at last teach the preparation of plants used in this invention is performed with the leaf, stem, root, flower, seed or whole plant. Choosing from a finite number of predictable solutions would have been obvious because a person of ordinary skill has good reason to pursue the known options with his or her technical grasps. If this leads to the

anticipated success, it is likely that the product is not of innovation, but of ordinary skill and common sense.

It would also have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the extract of *Chenopodium quinoa* to improve skin appearance, delay the onset of skin aging, reduce wrinkles, and maintain skin elasticity since Inomata et al teach MMP inhibitors can be used preventing the decomposition of skin extracellular matrix (ECM), preventing and relieving skin aging, maintaining skin elasticity, and reducing wrinkles. It would also have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the extract of *Chenopodium quinoa* to increase collagen production since the extract of *Chenopodium quinoa* has 66.3% MMP-1 inhibition as taught by Cyr, and according to Inomata et al, MMP-1 is collagenase, thus inhibiting collagenase would necessary increase the collagen production.

From the teachings of the references, it is apparent that one of the ordinary skills in the art would have had a reasonable expectation of success in producing the claimed invention.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection in view of Inomata et al.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Qiuwen Mi/

Examiner, Art Unit 1655